What is Claimed Is:

1. A bearing structure for a camshaft comprising a lower journal for supporting the camshaft thereon, the lower journal being formed with a hole cutting off a part of a bearing surface of the lower journal, wherein

a connecting part between the bearing surface and the hole is formed with a recess hollowed from the bearing surface to apart from the bearing surface, and a part of an edge connecting the recess and the bearing surface each other is elongated in a perpendicular direction to an axis of the bearing surface.

2. The bearing structure as defined by Claim 1, wherein a remaining part of an edge is elongated along a parallel direction to the axis of the bearing surface.

3. The bearing structure as defined by Claim 1, wherein the recess has a side surface connecting to the bearing surface.

4. The bearing structure as defined by Claim 3, wherein the side surface comprises a first side surface and a second side surface, the first side surface involves the part of the edge and is elongated in the perpendicular direction to the axis of the bearing surface, and the second side surface involves the remaining part of the edge and is elongated in the parallel direction to the axis of the bearing surface.

5. The bearing structure as defined by Claim 3, wherein the side surface has a ramp crossing to the bearing surface at an angle of less than 90°.

6. The bearing structure as defined by Claim 3, wherein the side surface has a curved surface tangentially crossing to the bearing surface.

7. The bearing structure as defined by Claim 3, wherein the recess has a bottom surface connecting to the side surface.

8. The bearing structure as defined by Claim 7, wherein the bottom surface is parallel to the bearing surface.

9. The bearing structure as defined by Claim 1, wherein the hole is formed in a region where the surface of the camshaft moves downwardly.

10. The bearing structure as defined by Claim 1, wherein the hole is a counterbore.

11. The bearing structure as defined by Claim 1, wherein the hole is offset in the axis direction of the bearing surface relative to a center of width of the bearing surface.

12. The bearing structure as defined by Claim 1, wherein a width of the bearing surface (L1) is wider than a standard width (L2) such that area of the bearing surface to be lost by providing the recess is compensated.

13. A bearing structure for a camshaft comprising a lower journal for supporting the camshaft thereon, the lower journal being formed with a counterbore cutting off a corner part of a bearing surface of the lower journal in an arc-of-circle like manner, wherein

a connecting part between the bearing surface and the counterbore is formed with an approximately triangular recess hollowed from the bearing surface to apart from the bearing surface, and an edge connecting the recess and the bearing surface each other comprises a first edge being elongated in a perpendicular direction to an axis of the bearing surface, and a second edge being elongated in a parallel direction to the axis of the bearing surface.

14. The bearing structure as defined by Claim 13, wherein the recess has a side surface connecting to the bearing surface, and the side surface comprises a first side surface involving the first edge and a second side surface involving the second edge.

15. The bearing structure as defined by Claim 14, wherein at least one of the first side surface and the second side surface has a ramp crossing to the bearing surface at an angle of less than 90°.

16. The bearing structure as defined by Claim 14, wherein at least one of the first side surface and the second side surface has a curved surface tangentially crossing to the bearing surface

17. The bearing structure as defined by Claim 14, wherein the recess has a bottom surface connecting to the side surface.

18. The bearing structure as defined by Claim 17, wherein the bottom surface is parallel to the bearing surface.

19. The bearing structure as defined by Claim 13, wherein the counterbore is

formed in a region where the surface of the camshaft moves downwardly.

20. The bearing structure as defined by Claim 13, wherein the counterbore is offset in the axis direction of the bearing surface relative to a center of width of the bearing surface.